

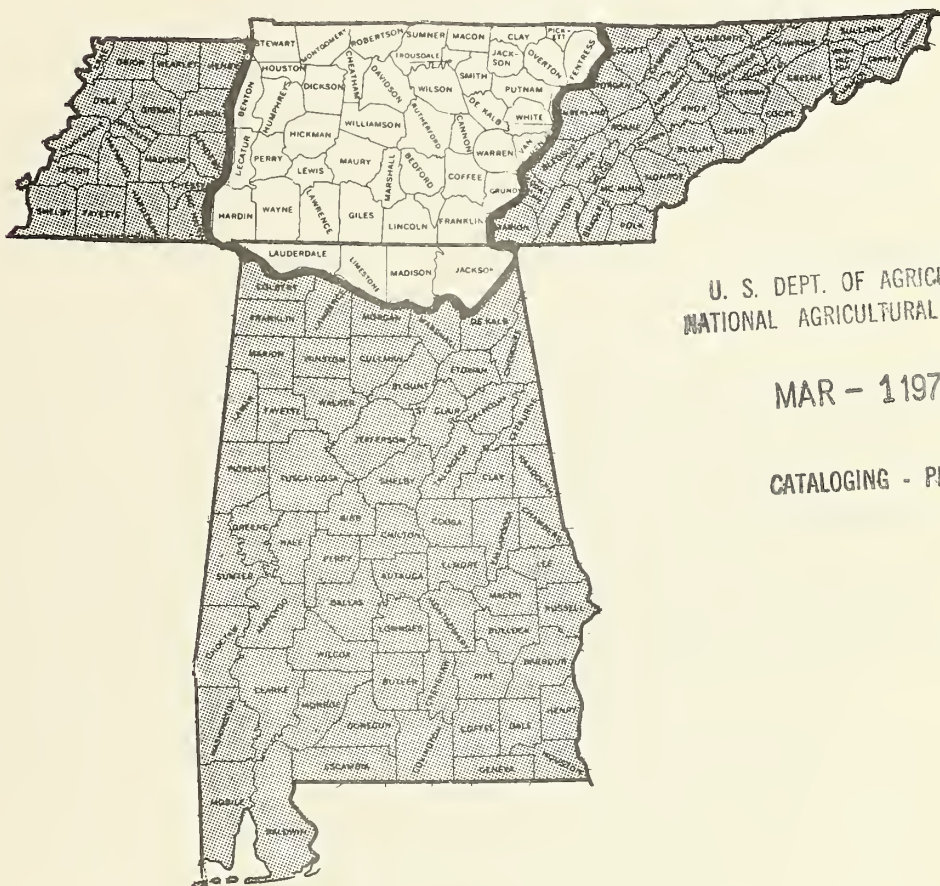
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SOIL SURVEY INTERPRETATIONS FOR WOODLANDS  
IN THE  
NASHVILLE BASIN AND HIGHLAND RIM AREAS  
OF  
ALABAMA AND TENNESSEE



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UNITED STATES DEPARTMENT OF AGRICULTURE  
Soil Conservation Service  
Fort Worth, Texas



This report contains interpretations of soil surveys for woodland use and management in the Nashville Basin and Highland Rim areas of Alabama and Tennessee. The purpose is to provide currently available knowledge about soils as they relate to the establishment, growth, management, and harvesting of wood crops for the use of foresters, agricultural workers, woodland owners, and woodland managers. The information will be used by the Soil Conservation Service and cooperating agencies in the development of technical guides, soil handbooks, and published soil survey reports.

Field information was gathered by teams of foresters and soil scientists. Representatives of Federal and State agencies, the wood-using industry, and others cooperated in gathering field data. The interpretations presented herein are made for use with soil surveys.

Table 2, SOIL RATINGS FOR WOODLAND USE, includes some evaluations for individual soils. The soil series listed are those defined according to the current soil classification system and includes portions of soil associations mapped in low intensity surveys. In column one (1) erosion and texture phases were consolidated within a soil series where no differences in productivity, species suitability or management problems existed.

Column two (2) includes a list of some of the commercially important tree species which are adapted to the soil in column one. These are the tree species which woodland managers generally favor in intermediate or improvement cuttings, after considering the form and vigor of individual trees. Priority between species will be influenced by local marketability and the owners objectives, as well as the quality of wood products from a given species.

Column three (3) indicates the average site index for the most important species listed in column two. The standard deviation is shown as a plus or minus figure ( $\pm$ ) for each species where five or more plots were taken on the

soils listed in column one. The site index curves used for each tree species are shown in Table 1, GUIDE FOR WOODLAND SUITABILITY CLASSES. An asterisk (\*) following the site index rating indicates the rating is an estimate based on the same species on a similar soil, or by comparison with another species on the same soil. Site index is the average height of dominant trees at age 30 for cottonwood, age 35 for sycamore, and age 50 for all other species.

Column four (4) indicates the range of site index of the most important tree species in column two. The range in site index values is dependent on soil physical conditions, aeration, and nutrient and moisture availability during the growing season.

Column five (5) evaluates the potential erosion hazard of the soil in woodland use following cutting operations, or where the soil is exposed along roads, trails, firebreaks, or log-yarding areas. A rating of slight indicates that problems of erosion control are unimportant. A rating of moderate indicates some attention must be given to prevent unnecessary soil erosion. A rating of severe indicates that intensive treatments, or special equipment and methods of operation should be planned to minimize soil erosion. The potential erosion hazard is based on slope, soil depth, and erodibility, and soil loss tolerance.

Column six (6) includes evaluation of equipment restrictions. Ratings reflect limitations in the use of equipment for managing or harvesting the tree crop. A rating of slight indicates equipment use is seldom limited in kind or time of year. A rating of moderate indicates a need for modified equipment or seasonal restrictions due to slope, stones, obstructions, soil wetness, flooding, or overflows. A rating of severe indicates the need for specialized equipment due to one or more of the factors listed above.



Column seven (7) indicates the degree of expected seedling mortality during the first two growing seasons after planting or seeding. Normal rainfall, adequate site preparation, good planting stock, proper planting methods, and appropriate protection and cultivation are assumed. A rating of slight indicates that unsatisfactory survival on less than 25 percent of the area is likely. A rating of moderate indicates that unsatisfactory survival is likely on 25 to 50 percent of the area planted. A rating of severe indicates that unsatisfactory survival is likely on more than 50 percent of the area.

Column eight (8) lists several suitable tree species for planting on the soil named in column one. The list may include some species which do not normally occur in native stands on the designated soil or in this physiographic area, as well as some of the important species listed in column two.

Column nine (9) shows the ordination of the soils into a woodland suitability group. A woodland suitability group is made up of kinds of soil that are capable of producing similar kinds of wood crops, that need similar management to produce these crops, and that have about the same potential productivity. The ordination system and the suitability group symbols are explained in the following paragraphs.

The first element of the group symbol indicates the woodland suitability class. It expresses site quality by an arabic numeral ranging from 1 to 5, with class 1 the highest in potential productivity, followed by class 2, 3, 4, and 5. It is based on the average site index of one or more indicator forest types or tree species, as shown in Table 1, GUIDE FOR WOODLAND SUITABILITY CLASSES. The indicator species are underscored in column two of Table 2.

The second element in the symbol indicates the suitability subclass. It expresses selected soil properties that cause moderate to severe hazards or

limitations in woodland use or management, by one of the following lower case arabic letters:

Subclass x (stoniness or rockiness). Soils having restrictions or limitations for woodland use or management due to stones or rocks.

Subclass w (excessive wetness). Soils in which excessive water, either seasonally or year long, causes significant limitations for woodland use or management. These soils have restricted drainage, high water tables, or overflow hazards which adversely affect either stand development or management.

Subclass d (restricted rooting depth). Soils with restrictions or limitations for woodland use or management due to restricted rooting depths. Soils shallow to hard rock, hardpan, or other layers in the soil that restrict roots are examples.

Subclass c (clayey soils). Soils having restrictions or limitations for woodland use or management due to the kind or amount of clay in the upper portion of the soil profile.

Subclass s (sandy soils). Sandy soils with little or no textural B horizons and having moderate to severe restrictions or limitations for woodland use or management. These soils impose equipment limitations, have low moisture-holding capacity, and normally are low in available plant nutrients.

Subclass f (fragmental or skeletal soils). Soils with restrictions or limitations for woodland use or management due to large amounts of coarse fragments in the profile over 2 mm and less than 10 inches, but includes flaggy soils.

Subclass r (relief or slope steepness). Soils with restrictions or limitations for woodland use or management due only to steepness of slope.



Subclass o (slight or no limitations). Soils with no significant restrictions or limitations for woodland use or management.

Some kinds of soil may have more than one set of subclass characteristics. Priority in placing each kind of soil into a subclass is in the order that the subclass characteristics are listed above.

The third element in the symbol indicates the degree of hazards or limitations, and the general suitability of the soils for certain kinds of trees. The three management problems considered here are: (1) erosion hazard, (2) equipment restrictions, and (3) seedling mortality.

The numeral 1 indicates soils with no to slight management problems, and they are best suited for needleleaf trees.

The numeral 2 indicates soils with one or more moderate management problems, and they are best suited for needleleaf trees.

The numeral 3 indicates soils with one or more severe management problems, and they are best suited for needleleaf trees.

The numeral 4 indicates soils with no to slight management problems, and they are best suited for broadleaf trees.

The numeral 5 indicates soils with one or more moderate management problems, and they are best suited for broadleaf trees.

The numeral 6 indicates soils with one or more severe management problems, and they are best suited for broadleaf trees.

The numeral 7 indicates soils with no to slight management problems, and they are suitable for either needleleaf or broadleaf trees.

The numeral 8 indicates soils with one or more moderate management problems, and they are suitable for either needleleaf or broadleaf trees.

The numeral 9 indicates soils with one or more severe management

problems, and they are suitable for either needleleaf or broadleaf trees.

The numeral 0 indicates the soils are not suitable for the production of major commercial wood products.

A fourth element, the letter e, has been used to ordinate some severely eroded soils with moderate to severe management problems into a separate "subgroup."

TABLE 1 - GUIDE FOR WOODLAND SUITABILITY CLASSES  
NASHVILLE BASIN - HIGHLAND RIM

Indicator Forest Type or Species		1	2	3	4	5
		Very	High	Moderately	Moderate	Low
		High		High		
		SITE INDEX				
Cottonwood	(1):	106+	96-105	86-95	76-85	75-
Yellow-poplar	(2):	106+	96-105	86-95	76-85	75-
Sweetgum	(3):	96+	86-95	76-85	66-75	65-
Water oaks	(4):	96+	86-95	76-85	66-75	65-
Nuttall oak	(5):	96+	86-95	76-85	66-75	65-
Loblolly pine	(6):	96+	86-95	76-85	66-75	65-
Shortleaf pine	(6):	86+	76-85	66-75	56-65	55-
Virginia pine	(6):	86+	76-85	66-75	56-65	55-
Sou.-red oak	(7):	86+	76-85	66-75	56-65	55-
Eastern redcedar	(8):	66+	56-65	46-55	35-45	35-
American sycamore	(9):	106+	96-105	86-95	76-85	75-
	:	:	:	:	:	:

- (1) Broadfoot, W. M., 1960, Field Guide for Evaluating Cottonwood Sites, USFS Occ. Paper 178 (Fig. 4).
- (2) Doolittle, W. T., 1957, Site Index Curves for Yellow-poplar--So. Appalachians.
- (3) Broadfoot, W. M., 1959, Guide for Evaluating Sweetgum Sites, USFS Occ. Paper 176 (Fig. 4).
- (4) Broadfoot, W. M., 1963, Guide for Evaluating Water Oak Sites in the Mid-South, USFS Res. Paper SO-1 (Fig. 4).
- (5) Broadfoot, W. M., Unpublished manuscript. Sou. For. Expmt. Sta., 1966.
- (6) Coile, T. S. and F. X. Schumacher, Jour. For. 53:432-435 (Fig. 4 and 8).
- (7) Schnur, L. G., 1937, Yield, Stand, and Volume Tables for Even-Aged Upland Oak Forests, USDA Tech. Bull. 560, Fig. 2.
- (8) TVA 1948, Site Curves, Eastern Redcedar, Tennessee Valley.
- (9) Briscoe, C. B. and M. D. Ferrill, 1958, Forestry Note 19, Louisiana State University.

TABLE 2. SOIL RATINGS FOR WOODLAND USE

Page 1 of 13

Soils	Potential Productivity			Management Problems			Species Suitable for Planting	Ordination Woodland Suitability Group
	Tree Species	Avg. Site Index & Standard Deviation	Range of Site Index	Erosion Hazard	Equipment Restriction	Seedling Mortality		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
<u>Allen</u> fine sandy loam to clay loam 2 to 20% slopes  ----- 20 to 45% slopes  ----- stony fine sandy loam, stony loam, 12 to 45% slopes  ----- fine sandy loam to clay loam, 5 to 45% slopes severely eroded	<u>Yellow-poplar</u>	87	85-97	Slight	Slight	Slight	Yellow-poplar Shortleaf pine Virginia pine Loblolly pine Black walnut  -----   ----- Shortleaf pine Virginia pine Loblolly pine	3o7     -----   ----- 3r8   ----- 3x8
	<u>Shortleaf pine</u>	71+10	59-82					
	<u>Virginia pine</u>	73	69-78					
	<u>Upland oaks</u>	71	67-75					
	<u>Eastern redcedar</u>	61	56-65					
	<u>White ash</u>	-	-					
	<u>Sugar maple</u>	-	-					
	<u>Black walnut</u>	-	-	Moderate	Moderate	Slight		
	<u>Black cherry</u>	-	-					
				Slight to Moderate	Moderate	Slight		
<u>Armour</u> silt loam to cherty silt loam slightly to moderately eroded, 2 to 20% slopes	<u>Shortleaf pine</u>	65*	60-70	Slight	Moderate to Severe	Moderate to Severe	Shortleaf pine Virginia pine Loblolly pine  ----- Loblolly pine Black walnut Yellow-poplar Black locust	4c3e     ----- 2o7
	<u>Virginia pine</u>	68*	65-75					
	<u>Eastern redcedar</u>	50*	46-55	Severe	Severe	Severe		
	<u>Eastern redcedar</u>	43	42-45	Slight	Slight	Slight		
	<u>Loblolly pine</u>	77	72-79					
	<u>Black walnut</u>	-	-					
	<u>Chinkapin oak</u>	-	-					
	<u>Northern red oak</u>	-	-					
	<u>White oak</u>	-	-					
	<u>Yellow-poplar</u>	-	-					
<u>Arrington</u> silt loam, 0 to 5% slopes	<u>Black locust</u>	-	-					
	<u>Yellow-poplar</u>	100*	96-105	Slight	Slight	Slight	Yellow-poplar Black walnut Loblolly pine  ----- Loblolly pine Black locust Black walnut	2o7
	<u>Upland oaks</u>	80*	76-85					
	<u>Loblolly pine</u>	90*	86-95					
	<u>Shortleaf pine</u>	80*	76-85					
	<u>Black walnut</u>	-	-					
	<u>Black cherry</u>	-	-					
	<u>White ash</u>	-	-					
	<u>Yellow-poplar</u>	90*	86-95	Slight	Slight	Slight		
	<u>Upland oaks</u>	70*	66-75					
	<u>Shortleaf pine</u>	70*	66-75					
<u>Ashburn</u> cherty silt loam to cherty silty clay loam, 6 to 20% slopes	<u>Loblolly pine</u>	80*	76-85				Loblolly pine Yellow-poplar Black walnut  ----- Loblolly pine Black locust Black walnut	3o7
	<u>Yellow-poplar</u>	90*	86-95	Slight	Slight	Slight		
	<u>Upland oaks</u>	70*	66-75					
	<u>Shortleaf pine</u>	70*	66-75					
	<u>Loblolly pine</u>	80*	76-85					
	<u>Yellow-poplar</u>	90*	86-95	Slight	Slight	Slight		
	<u>Upland oaks</u>	70*	66-75					
	<u>Shortleaf pine</u>	70*	66-75					
	<u>Loblolly pine</u>	80*	76-85					
	<u>Yellow-poplar</u>	90*	86-95	Slight	Slight	Slight		
<u>Ashwood</u> silt loam to silty clay loam, 2 to 20% slopes  ----- very rocky silty clay loam, 2 to 20% slopes	<u>Eastern redcedar</u>	44	40-50	Slight	Slight	Slight	Eastern redcedar Black locust Loblolly pine  ----- Eastern redcedar Loblolly pine	4o7
	<u>Upland oaks</u>	55	50-60					
	<u>Black locust</u>	-	-					
	<u>Black walnut</u>	-	-					
	<u>Loblolly pine</u>	-	-					
	<u>Eastern redcedar</u>	40*	35-45	Moderate	Severe	Severe		
	<u>Eastern redcedar</u>	40*	35-45	Moderate	Severe	Severe		
	<u>Eastern redcedar</u>	40*	35-45	Moderate	Severe	Severe		
	<u>Eastern redcedar</u>	40*	35-45	Moderate	Severe	Severe		
	<u>Eastern redcedar</u>	40*	35-45	Moderate	Severe	Severe		
<u>Barfield</u> silty clay loam to clay loam, 1 to 30% slopes  ----- very rocky clay loam, 1 to 30% slopes	<u>Eastern redcedar</u>	40+8	30-48	Moderate	Moderate	Moderate to Severe	Eastern redcedar  ----- Eastern redcedar	4d3
	<u>Eastern redcedar</u>	40+8	30-48	Moderate	Moderate	Moderate to Severe		
	<u>Eastern redcedar</u>	40+8	30-48	Moderate	Moderate	Moderate to Severe		
	<u>Eastern redcedar</u>	40+8	30-48	Moderate	Moderate	Moderate to Severe		
	<u>Eastern redcedar</u>	40+8	30-48	Moderate	Moderate	Moderate to Severe		
	<u>Eastern redcedar</u>	40+8	30-48	Moderate	Moderate	Moderate to Severe		
	<u>Eastern redcedar</u>	40+8	30-48	Moderate	Moderate	Moderate to Severe		
	<u>Eastern redcedar</u>	40+8	30-48	Moderate	Moderate	Moderate to Severe		
	<u>Eastern redcedar</u>	40+8	30-48	Moderate	Moderate	Moderate to Severe		
	<u>Eastern redcedar</u>	40+8	30-48	Moderate	Moderate	Moderate to Severe		
<u>Barfield</u> silty clay loam to clay loam, 1 to 30% slopes  ----- very rocky clay loam, 1 to 30% slopes	<u>Eastern redcedar</u>	40+8	30-48	Moderate	Moderate	Moderate to Severe	Eastern redcedar  ----- Eastern redcedar	4d3
	<u>Eastern redcedar</u>	40+8	30-48	Moderate	Moderate	Moderate to Severe		
	<u>Eastern redcedar</u>	40+8	30-48	Moderate	Moderate	Moderate to Severe		
	<u>Eastern redcedar</u>	40+8	30-48	Moderate	Moderate	Moderate to Severe		
	<u>Eastern redcedar</u>	40+8	30-48	Moderate	Moderate	Moderate to Severe		
	<u>Eastern redcedar</u>	40+8	30-48	Moderate	Moderate	Moderate to Severe		
	<u>Eastern redcedar</u>	40+8	30-48	Moderate	Moderate	Moderate to Severe		
	<u>Eastern redcedar</u>	40+8	30-48	Moderate	Moderate	Moderate to Severe		
	<u>Eastern redcedar</u>	40+8	30-48	Moderate	Moderate	Moderate to Severe		
	<u>Eastern redcedar</u>	40+8	30-48	Moderate	Moderate	Moderate to Severe		
<u>Barfield</u> silty clay loam to clay loam, 1 to 30% slopes  ----- very rocky clay loam, 1 to 30% slopes	<u>Eastern redcedar</u>	40+8	30-48	Moderate	Moderate	Moderate to Severe	Eastern redcedar  ----- Eastern redcedar	4d3
	<u>Eastern redcedar</u>	40+8	30-48	Moderate	Moderate	Moderate to Severe		
	<u>Eastern redcedar</u>	40+8	30-48	Moderate	Moderate	Moderate to Severe		
	<u>Eastern redcedar</u>	40+8	30-48	Moderate	Moderate	Moderate to Severe		
	<u>Eastern redcedar</u>	40+8	30-48	Moderate	Moderate	Moderate to Severe		
	<u>Eastern redcedar</u>	40+8	30-48	Moderate	Moderate	Moderate to Severe		
	<u>Eastern redcedar</u>	40+8	30-48	Moderate	Moderate	Moderate to Severe		
	<u>Eastern redcedar</u>	40+8	30-48	Moderate	Moderate	Moderate to Severe		
	<u>Eastern redcedar</u>	40+8	30-48	Moderate	Moderate	Moderate to Severe		
	<u>Eastern redcedar</u>	40+8	30-48	Moderate	Moderate	Moderate to Severe		



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	Tree Species	Avg. Site Index & Standard Deviation	Range of Site Index	Erosion Hazard	Equipment Restriction	Seedling Mortality		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
<u>Baxter</u> cherty silt loam, 2 to 20% slopes	<u>Yellow-poplar</u>	90+10	76-100	Slight	Slight	Slight	Yellow-poplar	3o7
	<u>Upland oaks</u>	70+5	53-78				Loblolly pine	
	Shortleaf pine	67+5	62-77					
	Virginia pine	68+6	61-68					
	Loblolly pine	73+6	66-83					
	Eastern redcedar	51	45-55					
	Black walnut	-	-					
20 to 45% slopes				Moderate	Moderate	Moderate		3r8
<u>Beason</u> silt loam, 0 to 2% slopes	<u>Yellow-poplar</u>	90*	86-95	Slight	Moderate	Slight	Loblolly pine	3w8
	Sweetgum	80*	76-85				Sweetgum	
	White oaks	70*	66-75					
	Red oaks	70*	66-75					
	<u>Loblolly pine</u>	80*	76-85					
<u>Bodine</u> cherty silt loam, 5 to 20% slopes	Shortleaf pine	58+11	48-76	Slight	Slight	Moderate	Loblolly pine	3f8
	<u>Yellow-poplar</u>	91+17	79-123				Shortleaf pine	
	<u>Upland oaks</u>	69+8	55-79					
	Virginia pine	60*	56-65					
	Loblolly pine	70*	66-75					
20 to 40% slopes, north aspect				Moderate	Moderate	Moderate		
20 to 40% slopes, south aspect, and ridge tops	Virginia pine	50*	46-55	Moderate	Severe	Severe	Virginia pine	4f3
	<u>Chestnut oak</u>	55*	50-60				Eastern redcedar	
	Scarlet oak	55*	50-60					
<u>Bouldin</u> stony sandy loam, 10 to 75% slopes	<u>Yellow-poplar</u>	90*	86-95	Moderate	Severe	Slight	Too stony to plant.	3x9
	<u>Upland oaks</u>	70*	66-75				Manage by natural	
	Shortleaf pine	70*	66-75				regeneration.	
<u>Bradyville</u> silt loam to silty clay loam, 0 to 20% slopes	<u>Yellow-poplar</u>	90*	86-85	Slight	Slight	Slight	Black walnut	3o7
	<u>Upland oaks</u>	70*	66-75				Loblolly pine	
	<u>Eastern redcedar</u>	50*	46-55				Eastern redcedar	
	Hackberry	-	-					
	Hickory	-	-					
	Black walnut	-	-					
<u>Brandon</u> silt loam to gravelly silt loam, 5 to 20% slopes	<u>Shortleaf pine</u>	64	56-71	Slight	Slight	Slight	Loblolly pine	3o7
	<u>Yellow-poplar</u>	80	76-85				Shortleaf pine	
	<u>Upland oaks</u>	65*	60-70					
	Loblolly pine	75*	70-80					
<u>Braxton</u> silt loam, 0 to 20% slopes, slight and moderately eroded	<u>Upland oaks</u>	70*	66-75	Slight	Slight	Slight	Loblolly pine	3o7
	<u>Eastern redcedar</u>	50*	46-55				Eastern redcedar	
	Black locust	-	-				Black walnut	
	Black walnut	-	-				Black locust	
	Loblolly pine	80*	76-85					
silty clay loam, 0 to 20% slopes severely eroded	<u>Eastern redcedar</u>	40*	36-45	Slight	Moderate	Moderate to Severe	Eastern redcedar	4c3e
	Loblolly pine	70*	66-75				Loblolly pine	
<u>Bruno</u> loamy fine sand, 0 to 2% slopes	<u>Shortleaf pine</u>	80*	76-85	Slight	Moderate	Moderate	Shortleaf pine	2s8
	Virginia pine	80*	76-85				Loblolly pine	
	<u>Loblolly pine</u>	90*	86-85					
	Sycamore	-	-					



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	Tree Species	Avg. Site Index & Standard Deviation	Range of Site Index	Erosion Hazard	Equipment Restriction	Seedling Mortality		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
<u>Cannon</u> cherty silt loam, 0 to 5% slopes	<u>Yellow-poplar</u>	100	96-105	Slight	Slight	Slight	Yellow-poplar Black walnut Loblolly pine	2o7
	<u>Upland oaks</u>	80	76-85					
	Loblolly pine	90	86-95					
	Black walnut	-	-					
	Black cherry	-	-					
	White ash	-	-					
<u>Capshaw</u> silt loam to loam, 0 to 12% slopes	<u>Loblolly pine</u>	80*	76-85	Slight	Slight	Slight	Loblolly pine Shortleaf pine	3o7
	<u>Yellow-poplar</u>	90*	86-95					
	<u>Upland oaks</u>	70*	66-75					
<u>Captina</u> loam, 0 to 12% slopes	<u>Loblolly pine</u>	80*	76-85	Slight	Slight	Slight	Loblolly pine	3o7
	<u>Yellow-poplar</u>	90*	86-95					
	<u>Upland oaks</u>	70*	66-75					
	<u>Sweetgum</u>	80*	76-85					
<u>Christian</u> silt loam to silty clay loam, 2 to 20% slopes	<u>Shortleaf pine</u>	66	60-70	Slight	Slight	Slight	Loblolly pine Shortleaf pine Virginia pine	3o7
	<u>Loblolly pine</u>	80*	76-85					
	<u>White pine</u>	82	76-85					
	<u>Upland oaks</u>	66	63-74					
	<u>Virginia pine</u>	73	70-76					
clay loam to clay, 5 to 20% slopes, severely eroded	<u>Virginia pine</u>	60*	56-65	Slight	Moderate to Severe	Moderate to Severe	Loblolly pine Virginia pine	4c3e
	<u>Loblolly pine</u>	70*	66-75					
<u>Colbert</u> silt loam to silty clay loam, 0 to 20% slopes	<u>Shortleaf pine</u>	60*	56-65	Slight	Slight	Moderate	Loblolly pine Eastern redcedar	4c2
	<u>Loblolly pine</u>	65+4	60-69					
	<u>Eastern redcedar</u>	47	45-49					
silty clay to clay, 0 to 20% slopes	<u>Eastern redcedar</u>	35*	30-40	Slight	Moderate	Severe	Eastern redcedar	5c3
very rocky silty clay to clay, 0 to 30% slopes	<u>Eastern redcedar</u>	35*	30-40	Slight	Severe	Moderate to Severe	Eastern redcedar	5x3
<u>Crider</u> silt loam, 2 to 20% slopes	<u>Yellow-poplar</u>	95*	90-100	Slight	Slight	Slight	Yellow-poplar Black walnut Loblolly pine	2o7
	<u>Upland oaks</u>	80*	76-85					
	Black walnut	-	-					
	White ash	-	-					
	Sugar maple	-	-					
	Basswood	-	-					
	Shortleaf pine	80*	76-85					
	Loblolly pine	90*	86-95					
<u>Culleoka</u> loam and flaggy loam, 2 to 20% slopes	<u>Yellow-poplar</u>	90*	86-95	Slight	Slight	Slight	Yellow-poplar Black walnut Loblolly pine Black locust	3o7
	<u>Upland oaks</u>	70*	66-75					
	Black walnut	-	-					
	Black cherry	-	-					
	White ash	-	-					
	Basswood	-	-					
	Black locust	-	-					
	Loblolly pine	80*	76-85					
	Eastern redcedar	-	-					
20 to 40% slopes				Moderate	Moderate	Slight		3r8

TABLE 2. SOIL RATINGS FOR WOODLAND USE

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Soils	Potential Productivity			Management Problems			Species Suitable for Planting	Ordination Woodland Suitability Group
	Tree Species	Avg. Site Index & Standard Deviation	Range of Site Index	Erosion Hazard	Equipment Restriction	Seedling Mortality		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
<u>Cumberland</u> silt loam to silty clay loam, 2 to 20% slopes	<u>Yellow-poplar</u>	90*	86-95	Slight	Slight	Slight	Yellow-poplar	3o7
	<u>Upland oaks</u>	70*	66-75				Black walnut	
	<u>Shortleaf pine</u>	70*	66-75				Shortleaf pine	
	<u>Virginia pine</u>	70*	66-75				Loblolly pine	
	<u>Loblolly pine</u>	80*	76-85					
	<u>Eastern redcedar</u>	50*	46-55					
	<u>Black walnut</u>	-	-					
silty clay or clay, 2 to 20% slopes, severely eroded	<u>Virginia pine</u>	60*	56-65	Slight	Moderate to Severe	Moderate to Severe	Loblolly pine	4c3e
	<u>Loblolly pine</u>	70*	66-75				Eastern redcedar	
	<u>Eastern redcedar</u>	40*	36-45					
<u>Dandridge</u> silt loam to shaly silt loam, 5 to 20% slopes slight and moderate erosion	<u>Upland oaks</u>	60	57-63	Slight	Moderate to Severe	Moderate to Severe	Virginia pine	4d3
	<u>Virginia pine</u>	55*	50-60				Eastern redcedar	
	<u>Eastern redcedar</u>	40*	36-45	Moderate				
silty clay loam, shaly silty clay loam, 5 to 45% slopes, severely eroded	<u>Eastern redcedar</u>	30*	26-35	Moderate to Severe	Severe	Moderate to Severe	Eastern redcedar	5d3
<u>Decatur</u> silt loam to gravelly silt loam, 2 to 20% slopes	<u>Shortleaf pine</u>	66+4	60-72	Slight	Slight	Slight	Yellow-poplar	3o7
	<u>Yellow-poplar</u>	90*	86-95				Black walnut	
	<u>Upland oaks</u>	70*	66-75				Loblolly pine	
	<u>Virginia pine</u>	70*	66-75					
	<u>Loblolly pine</u>	80*	76-85					
	<u>Black walnut</u>	-	-					
20 to 30% slopes				Moderate	Moderate	Slight		3r8
silty clay loam to gravelly silty clay loam, 5 to 30% slopes severely eroded	<u>Loblolly pine</u>	72	67-76	Slight	Moderate to Severe	Moderate	Loblolly pine	4c3e
	<u>Virginia pine</u>	60*	56-65				Eastern redcedar	
	<u>Eastern redcedar</u>	40*	36-45					
<u>Dellrose</u> cherty silt loam, 5 to 20% slopes	<u>Yellow-poplar</u>	98+10	88-116	Slight	Slight	Slight	Yellow-poplar	2o7
	<u>Upland oaks</u>	76	70-82				Black walnut	
	<u>Loblolly pine</u>	76	75-78				Black locust	
	<u>Black walnut</u>	-	-				Loblolly pine	
	<u>Sugar maple</u>	-	-					
20 to 45% slopes	<u>Basswood</u>	-	-	Moderate	Moderate	Slight		2r8
	<u>Black cherry</u>	-	-					
	<u>White ash</u>	-	-					
	<u>Black locust</u>	-	-					
<u>Dewey</u> silt loam, 2 to 20% slopes	<u>Yellow-poplar</u>	90*	86-95	Slight	Slight	Slight	Yellow-poplar	3o7
	<u>Upland oaks</u>	70*	66-75				Black walnut	
	<u>Shortleaf pine</u>	73	66-78				Loblolly pine	
	<u>Virginia pine</u>	70*	66-75					
	<u>Loblolly pine</u>	80*	76-85	Moderate	Moderate	Slight		
20 to 30% slopes	<u>Black walnut</u>	-	-					3r8
	<u>Eastern redcedar</u>	50*	46-55					
silty clay loam, 5 to 30% slopes severely eroded	<u>Loblolly pine</u>	70*	66-75	Slight	Moderate to Severe	Moderate	Loblolly pine	4c3e
	<u>Virginia pine</u>	60*	56-65				Eastern redcedar	
	<u>Eastern redcedar</u>	40*	36-45	Moderate				

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Soils	Potential Productivity			Management Problems			Species Suitable for Planting	Ordination Woodland Suitability Group
	Tree Species	Avg. Site Index & Standard Deviation	Range of Site Index	Erosion Hazard	Equipment Restriction	Seedling Mortality		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
<u>Dickson</u> silt loam, 0 to 12% slopes	<u>Yellow-poplar</u> <u>Upland oaks</u> Loblolly pine Shortleaf pine	92 73+7 80* 70*	86-108 63-84 76-85 66-75	Slight	Slight	Slight	Loblolly pine Shortleaf pine	3o7
<u>Donerail</u> silt loam, 0 to 12% slopes	<u>Yellow-poplar</u> <u>Upland oaks</u> Black walnut Loblolly pine Black locust White ash	90* 70* - 80* - -	86-95 66-75 - 76-85 - -	Slight	Slight	Slight	Black walnut Black locust Loblolly pine	3o7
<u>Dowellton</u> silt loam, 0 to 5% slopes	<u>Sweetgum</u> Bottomland oaks Loblolly pine	80* 80* 80*	76-85 76-85 76-85	Slight	Severe	Severe	Loblolly pine Sweetgum	3w9
<u>Dunning</u> silty clay loam to silty clay, 0 to 5% slopes	<u>Sweetgum</u> Bottomland oaks <u>Loblolly pine</u> Cottonwood Green ash	90* 90* 90* 100* -	86-95 86-95 86-95 96-105 -	Slight	Severe	Severe	Loblolly pine Cottonwood Sweetgum	2w9
<u>Egam</u> silt loam to silty clay loam, 0 to 5% slopes	<u>Yellow-poplar</u> <u>Upland oaks</u> Bottomland oaks <u>Loblolly pine</u> Black walnut	100* 80* 90* 90* -	96-105 76-85 86-95 86-95 -	Slight	Slight	Slight	Yellow-poplar Black walnut Loblolly pine	2o7
<u>Elkins</u> silt loam, 0 to 2% slopes	<u>Yellow-poplar</u> <u>Bottomland oaks</u> Loblolly pine Sweetgum Red maple	86 94 90* 90* -	82-92 89-99 86-95 86-95 -	Slight	Severe	Severe	Loblolly pine	2w9
<u>Emory</u> silt loam, 0 to 5% slopes	<u>Yellow-poplar</u> <u>Upland oaks</u> <u>Loblolly pine</u> Black walnut White ash Black cherry	104 80* 90* - - -	91-118 76-85 86-95 - - -	Slight	Slight	Slight	Yellow-poplar Black walnut Loblolly pine	2o7
<u>Ennis</u> silt loam to cherty silt loam, 0 to 5% slopes	<u>Yellow-poplar</u> <u>Upland oaks</u> Loblolly pine Black walnut Black cherry White ash	100+8 80* 90* - - -	92-115 76-85 86-95 - - -	Slight	Slight	Slight	Yellow-poplar Black walnut Loblolly pine	2o7
<u>Etowah</u> silt loam to cherty silty clay loam, 2 to 12% slopes	<u>Yellow-poplar</u> <u>Upland oaks</u> <u>Loblolly pine</u> Shortleaf pine Black walnut	90* 80* 90* 80*	86-95 76-85 86-95 76-85	Slight	Slight	Slight	Yellow-poplar Black walnut Loblolly pine Shortleaf pine	2o7
<u>Fairmount</u> silty clay loam, 5 to 20% slopes	<u>Upland oaks</u> Eastern redcedar	60* 40*	56-65 36-45	Slight	Moderate	Severe	Eastern redcedar Loblolly pine	4d3



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Soils	Potential Productivity			Management Problems			Species Suitable for Planting	Ordination Woodland Suitability Group
	Tree Species	Avg. Site Index & Standard Deviation	Range of Site Index	Erosion Hazard	Equipment Restriction	Seedling Mortality		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
<u>Frankstown</u> cherty silt loam, 0 to 20% slopes ----- cherty silt loam, 20 to 45% slopes	<u>Yellow-poplar</u> <u>Upland oaks</u> Shortleaf pine Virginia pine Loblolly pine Black locust Black walnut	80* 70* 65* 70* 80* - -	76-85 66-75 60-70 66-75 76-85 - -	Slight    ----- Moderate	Slight    ----- Moderate	Slight    ----- Slight	Shortleaf pine Loblolly pine Black walnut Black locust	3o7    ----- 3r8
<u>Fullerton</u> silt loam to cherty silt loam, 5 to 20% slopes ----- silt loam to cherty silt loam, 20 to 30% slopes; 30 to 45% slopes, north aspect  ----- cherty silty clay loam, 12 to 45% slopes, severely eroded; cherty silt loam, 30 to 45% slopes; south aspect and ridge tops	<u>Yellow-poplar</u> <u>Upland oaks</u> Loblolly pine Shortleaf pine Virginia pine <u>Eastern redcedar</u>  <u>Loblolly pine</u> Virginia pine Eastern redcedar	90+10 70+5 74+6 67+5 68+6 50*  65* 60* 40*	76-100 63-78 66-83 60-77 61-78 46-55  61-70 56-65 36-45	Slight    ----- Moderate   Slight to Severe	Slight    ----- Moderate to Severe   Moderate to Severe	Slight    ----- Slight   Moderate to Severe	Shortleaf pine Loblolly pine Virginia pine    Loblolly pine Virginia pine Eastern redcedar	3o7    ----- 3r8   4c3e
<u>Godwin</u> silt loam, 0 to 5% slopes	<u>Bottomland oaks</u> Cottonwood <u>Sweetgum</u> Loblolly pine Green ash	90* 100* 90* 90* -	86-95 96-105 86-95 86-95 -	Slight	Severe	Severe	Loblolly pine Cottonwood Sweetgum	2w9
<u>Greendale</u> silt loam to cherty silt loam, 0 to 12% slopes	<u>Yellow-poplar</u> <u>Upland oaks</u> Shortleaf pine <u>Loblolly pine</u> Black walnut Sugar maple Black cherry White ash	100* 80* 80* 90* - - - -	85-105 70-85 70-85 80-95 - - - -	Slight	Slight	Slight	Yellow-poplar Black walnut Loblolly pine Shortleaf pine	2o7
<u>Guin</u> gravelly loam, slight to moderately eroded, 2 to 35% slopes	<u>Upland oaks</u> <u>Shortleaf pine</u> Loblolly pine	60* 60* 66+3	56-65 56-65 60-70	Slight	Moderate to Severe	Moderate	Shortleaf pine Loblolly pine	4f3
<u>Guthrie</u> silt loam, 0 to 2% slopes	<u>Yellow-poplar</u> <u>Upland oaks</u> <u>Loblolly pine</u> <u>Bottomland oaks</u> Sweetgum Red maple	102 76+9 79 87 90* -	95-110 60-86 75-82 74-98 86-95 -	Slight	Severe	Severe	Loblolly pine Sweetgum	2w9
<u>Hamblen</u> loam to fine sand, loam, 0 to 5% slopes	<u>Yellow-poplar</u> <u>Upland oaks</u> Loblolly pine	100* 80* 90*	96-105 76-85 86-95	Slight	Moderate	Slight	Loblolly pine Yellow-poplar	2w8

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Soils	Potential Productivity			Management Problems			Species Suitable for Planting	Ordination Woodland Suitability Group
	Tree Species	Avg. Site Index & Standard Deviation	Range of Site Index	Erosion Hazard	Equipment Restriction	Seedling Mortality		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
<u>Hampshire</u> silt loam to silty clay loam, 2 to 20% slopes	<u>Upland oaks</u> <u>Loblolly pine</u> <u>Eastern redcedar</u> Black walnut Black locust Sugar maple	70* 80* 50* - - -	66-75 76-85 46-55 - - -	Slight	Slight	Slight	Black walnut Loblolly pine Black locust	3o7
silty clay to clay, 5 to 20% slopes, severely eroded	<u>Eastern redcedar</u> <u>Loblolly pine</u>	40* 70*	36-45 66-75	Slight to Moderate	Moderate	Moderate	Loblolly pine Eastern redcedar	4c3e
<u>Harpeth</u> silt loam to silty clay loam, 2 to 12% slopes	<u>Yellow-poplar</u> <u>Upland oaks</u> <u>Loblolly pine</u> Black cherry Black walnut	100 80 90 - -	96-105 76-85 86-95 - -	Slight	Slight	Slight	Yellow-poplar Black walnut Loblolly pine	2o7
<u>Hicks</u> loam to silty clay loam, 2 to 20% slopes	<u>Yellow-poplar</u> <u>Upland oaks</u> <u>Shortleaf pine</u> <u>Loblolly pine</u> <u>Eastern redcedar</u> Black walnut Black locust	90* 70* 70* 80* 50* - -	86-95 66-75 66-75 76-85 46-55 - -	Slight	Slight	Slight	Black walnut Black locust Loblolly pine Shortleaf pine	3o7
<u>Hollywood</u> silty clay loam to clay, 0 to 5% slopes	<u>Sweetgum</u> <u>Bottomland oaks</u> <u>Loblolly pine</u> <u>Cottonwood</u> Green ash	90* 90* 90* 100* -	86-95 86-85 86-95 96-105 -	Slight	Severe	Severe	Loblolly pine Cottonwood Sweetgum	2w9
<u>Holston</u> loam to gravelly loam, 2 to 20% slopes	<u>Yellow-poplar</u> <u>Upland oaks</u> <u>Shortleaf pine</u> <u>Loblolly pine</u> <u>Virginia pine</u>	86+3 78+6 69+7 85* 73	80-90 70-85 61-80 80-90 70-80	Slight	Slight	Slight	Loblolly pine Shortleaf pine Virginia pine	3o7
<u>Humphreys</u> silt loam to gravelly silt loam, 2 to 20% slopes	<u>Yellow-poplar</u> <u>Upland oaks</u> <u>Shortleaf pine</u> <u>Loblolly pine</u> Black walnut	101 70* 70* 90* -	84-110 66-75 66-75 85-95 -	Slight	Slight	Slight	Yellow-poplar Black walnut Loblolly pine	2o7
<u>Huntington</u> silt loam to gravelly silt loam, 0 to 5% slopes	<u>Yellow-poplar</u> <u>Upland oaks</u> <u>Loblolly pine</u> <u>Shortleaf pine</u> Black walnut Black cherry White ash	100* 80* 90* 80* - - -	96-105 76-85 86-95 76-85 - - -	Slight	Slight	Slight	Yellow-poplar Black walnut Loblolly pine	2o7
<u>Iberia</u> silty clay loam to clay, 0 to 2% slopes	<u>Bottomland oaks</u> <u>Cottonwood</u> <u>Sweetgum</u> <u>Loblolly pine</u> Green ash	90* 100* 90* 90* -	86-95 96-105 96-105 96-105 -	Slight	Severe	Severe	Cottonwood Loblolly pine Sweetgum	2w9



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Soils	Potential Productivity			Management Problems			Species Suitable for Planting	Ordination
	Tree Species	Avg. Site Index & Standard Deviation	Range of Site Index	Erosion Hazard	Equipment Restriction	Seedling Mortality		Woodland Suitability Group
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
<u>Inman</u> silt loam to silty clay loam, 2 to 20% slopes ----- 20 to 45% slopes	Yellow-poplar Upland oaks Shortleaf pine Loblolly pine Eastern redcedar Black walnut Black locust	90* 70* 70* 80* 50* - -	86-95 66-75 66-75 76-85 46-55 - -	Slight     Moderate	Slight     Moderate	Slight     Slight	Black walnut Black locust Loblolly pine	3o7     3r8
clay loam to clay, 5 to 45% slopes, severely eroded	Eastern redcedar Loblolly pine	40* 70*	36-45 66-75	Slight to Moderate	Moderate to Severe	Moderate	Loblolly pine Eastern redcedar	4c3e
<u>Landisburg</u> silt loam to cherty silt loam, 0 to 20% slopes	Yellow-poplar Upland oaks Loblolly pine Virginia pine Shortleaf pine	90* 70* 85* 70* 70*	86-95 66-75 80-90 66-75 66-75	Slight	Slight	Slight	Loblolly pine Shortleaf pine Virginia pine	3o7
<u>Lanton</u> silt loam to silty clay loam, 0 to 5% slopes	Bottomland oaks Cottonwood Sweetgum Loblolly pine Green ash	90* 100* 90* 90* -	86-95 96-105 86-95 86-95 -	Slight	Severe	Severe	Loblolly pine Cottonwood Sweetgum	2w9
<u>Lawrence</u> silt loam, 0 to 5% slopes	Yellow-poplar Upland oaks Loblolly pine Sweetgum	90* 70* 85* 80*	86-95 66-75 80-90 76-85	Slight	Moderate	Moderate	Loblolly pine	3w8
<u>Lax</u> silt loam, 0 to 12% slopes	Yellow-poplar Upland oaks Loblolly pine Shortleaf pine	90* 70* 80* 70*	86-95 66-75 76-85 66-75	Slight	Slight	Slight	Loblolly pine Shortleaf pine	3o7
<u>Lee</u> silt loam to cherty silt loam, 0 to 5% slopes	Yellow-poplar Upland oaks Bottomland oaks Sweetgum Loblolly pine	90* 80* 90* 90* 90	86-95 76-85 86-95 86-95 86-95	Slight	Severe	Severe	Loblolly pine	2w9
<u>Lindside</u> silt loam to cherty silt loam, 0 to 5% slopes	Yellow-poplar Upland oaks Loblolly pine Sweetgum Black walnut	100* 80* 90* 90* -	96-105 76-85 86-95 86-95 -	Slight	Moderate	Slight	Yellow-poplar Black walnut Loblolly pine	2w8
<u>Lobelville</u> silt loam to cherty silt loam, 0 to 5% slopes	Yellow-poplar Upland oak Loblolly pine Black walnut	94 76 90* -	82-110 71-83 86-95 -	Slight	Moderate	Slight	Yellow-poplar Black walnut Loblolly pine	2w8
<u>Lynnville</u> silt loam to cherty silt loam, 0 to 5% slopes	Yellow-poplar Upland oaks Loblolly pine Sweetgum Black walnut	100* 80* 90* 90* -	96-105 76-85 86-75 86-95 -	Slight	Moderate	Slight	Yellow-poplar Black walnut Loblolly pine	2w8

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Soils	Potential Productivity			Management Problems			Species Suitable for Planting	Ordination Woodland Suitability Group
	Tree Species	Avg. Site Index & Standard Deviation	Range of Site Index	Erosion Hazard	Equipment Restriction	Seedling Mortality		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
<u>Maury</u> silt loam, 2 to 20% slopes	<u>Yellow-poplar</u>	90*	86-95	Slight	Slight	Slight	Yellow-poplar Black walnut Black locust Loblolly pine Shortleaf pine	3o7
	<u>Upland oaks</u>	70*	66-75					
	<u>Shortleaf pine</u>	70*	66-75					
	<u>Loblolly pine</u>	80*	76-85					
	<u>Black walnut</u>	-	-					
	<u>Black locust</u>	-	-					
	<u>Black cherry</u>	-	-					
	<u>Sugar maple</u>	-	-					
	<u>White ash</u>	-	-					
	<u>Shortleaf pine</u>	60*	56-65					
silty clay loam, 5 to 20% slopes, severely eroded	<u>Loblolly pine</u>	70*	66-75	Slight	Moderate	Moderate to Severe	Loblolly pine Eastern redcedar	4c3e
	<u>Eastern redcedar</u>	50*	45-55					
	<u>Black locust</u>	-	-					
<u>Melvin</u> silt loam to silty clay loam, 0 to 2% slopes	<u>Yellow-poplar</u>	90*	86-95	Slight	Severe	Severe	Loblolly pine Sweetgum Cottonwood	2w9
	<u>Bottomland oaks</u>	90*	86-95					
	<u>Sweetgum</u>	90*	86-95					
	<u>Cottonwood</u>	100*	96-105					
	<u>Loblolly pine</u>	90*	86-95					
	<u>Green ash</u>	-	-					
<u>Mercer</u> silt loam to silty clay loam, 0 to 20% slopes	<u>Upland oaks</u>	70*	66-75	Slight	Slight	Slight	Loblolly pine Black walnut Black locust	3o7
	<u>Shortleaf pine</u>	70*	66-75					
	<u>Loblolly pine</u>	80*	76-85					
	<u>Black walnut</u>	-	-					
	<u>Black locust</u>	-	-					
<u>Mimosa</u> silt loam to cherty silt loam, 2 to 20% slopes ----- 20 to 45% slopes ----- cherty silty clay to clay, 5 to 45% slopes, severely eroded ----- very rocky silty clay to clay-all slopes	<u>Upland oaks</u>	70*	66-75	Slight	Slight	Slight	Loblolly pine Black locust Eastern redcedar	3o7
	<u>Loblolly pine</u>	80*	76-85					
	<u>Eastern redcedar</u>	50*	46-55					
	<u>Black walnut</u>	-	-					
	<u>Black locust</u>	-	-					
	<u>Hickory</u>	-	-					
	<u>Loblolly pine</u>	70*	66-75					
	<u>Eastern redcedar</u>	45-*	40-50					
<u>Minvale</u> silt loam to cherty silt loam, 2 to 20% slopes	<u>Yellow-poplar</u>	89+8	74-96	Slight	Slight	Slight	Yellow-poplar Black walnut Shortleaf pine Loblolly pine	3o7
	<u>Upland oaks</u>	62	58-65					
	<u>Shortleaf pine</u>	73	65-78					
	<u>Loblolly pine</u>	80*	76-85					
	<u>Virginia pine</u>	70*	65-75					
	<u>Black walnut</u>	-	-					
<u>Monongahela</u> silt loam to gravelly loam, 0 to 12% slopes	<u>Yellow-poplar</u>	90*	86-95	Slight	Slight	Slight	Loblolly pine Shortleaf pine Virginia pine	3o7
	<u>Upland oaks</u>	73+6	64-82					
	<u>Shortleaf pine</u>	70*	65-75					
	<u>Loblolly pine</u>	81+6	70-88					
	<u>Virginia pine</u>	70*	65-75					
<u>Mountview</u> silt loam, 2 to 20% slopes	<u>Yellow-poplar</u>	90+10	75-108	Slight	Slight	Slight	Shortleaf pine Loblolly pine Virginia pine	3o7
	<u>Upland oaks</u>	67+10	53-87					
	<u>Shortleaf pine</u>	64+8	58-79					
	<u>Loblolly pine</u>	80*	76-85					
	<u>Virginia pine</u>	62	52-72					

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Soils	Potential Productivity			Management Problems			Species Suitable for Planting	Ordination Woodland Suitability Group
	Tree Species	Avg. Site Index & Standard Deviation	Range of Site Index	Erosion Hazard	Equipment Restriction	Seedling Mortality		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
<u>Newark</u> silt loam, 0 to 2% slopes	<u>Loblolly pine</u> <u>Bottomland oaks</u> <u>Sweetgum</u> <u>Green ash</u>	90* 90* 90* -	86-95 86-95 86-95 -	Slight	Moderate	Slight	Loblolly pine Sweetgum Cottonwood	2w8
<u>Nixa</u> silt loam, 0 to 12% slopes	<u>Yellow-poplar</u> <u>Upland oaks</u> <u>Loblolly pine</u> <u>Shortleaf pine</u>	90* 70* 80* 80*	86-95 66-75 76-85 76-85	Slight	Slight	Slight	Loblolly pine Shortleaf pine	3o7
<u>Nugent</u> fine sandy loam to loamy fine sand, 0 to 2% slopes	<u>Shortleaf pine</u> <u>Virginia pine</u> <u>Loblolly pine</u> <u>Sycamore</u>	80* 80* 90* -	76-85 76-85 86-95 -	Slight	Moderate	Moderate	Loblolly pine Shortleaf pine	2s8
<u>Paden</u> silt loam, 0 to 12% slopes	<u>Loblolly pine</u> <u>Shortleaf pine</u> <u>Sweetgum</u>	80* 70* 80*	76-85 66-75 76-85	Slight	Slight	Slight	Loblolly pine	3o7
<u>Pembroke</u> silt loam, 0 to 20% slopes	<u>Yellow-poplar</u> <u>Upland oaks</u> <u>Loblolly pine</u> <u>Shortleaf pine</u> <u>Black walnut</u> <u>Black cherry</u> <u>White ash</u> <u>Basswood</u>	100* 80* 90* 80* - - - -	96-105 76-85 86-95 76-85 - - - -	Slight	Slight	Slight	Yellow-poplar Black walnut Loblolly pine	2o7
<u>Pickwick</u> silt loam, 2 to 20% slopes	<u>Yellow-poplar</u> <u>Upland oaks</u> <u>Shortleaf pine</u> <u>Virginia pine</u> <u>Loblolly pine</u> <u>Eastern redcedar</u> <u>Black walnut</u>	95+8 73 70* 70* 80* 55 -	82-108 66-86 66-75 66-75 76-85 48-61 -	Slight	Slight	Slight	Yellow-poplar Black walnut Loblolly pine	3o7
<u>Robertsville</u> silt loam, 0 to 2% slopes	<u>Yellow-poplar</u> <u>Upland oak</u> <u>Loblolly pine</u> <u>Bottomland oaks</u> <u>Sweetgum</u> <u>Red maple</u>	100* 75* 80* 90* 90* -	96-105 70-80 76-85 86-95 86-95 -	Slight	Severe	Severe	Loblolly pine Sweetgum	2w9
<u>Rockcastle</u> shaly silt loam, 10 to 50% slopes	<u>Virginia pine</u> <u>Shortleaf pine</u> <u>Upland oaks</u> <u>Eastern redcedar</u>	50* 50* 50* 30*	46-55 46-55 46-55 26-35	Slight to Severe	Moderate to Severe	Moderate to Severe	Virginia pine Eastern redcedar	5d3
<u>Roellen</u> silty clay loam, 0 to 2% slopes	<u>Bottomland oaks</u> <u>Cottonwood</u> <u>Sweetgum</u> <u>Loblolly pine</u> <u>Green ash</u>	90* 100* 90* 90* -	86-95 96-105 86-95 86-95 -	Slight	Severe	Severe	Loblolly pine Cottonwood Sweetgum	2w9
<u>Russellville</u> silt loam, 0 to 12% slopes	<u>Yellow-poplar</u> <u>Upland oaks</u> <u>Loblolly pine</u> <u>Shortleaf pine</u>	90* 70* 80* 70*	86-95 66-75 76-85 66-75	Slight	Slight	Slight	Loblolly pine Shortleaf pine	3o7



TABLE 2. SOIL RATINGS FOR WOODLAND USE

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Soils	Potential Productivity			Management Problems			Species Suitable for Planting	Ordination Woodland Suitability Group
	Tree Species	Avg. Site Index & Standard Deviation	Range of Site Index	Erosion Hazard	Equipment Restriction	Seedling Mortality		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
<u>Sango</u> silt loam, 0 to 5% slopes	Yellow-poplar Upland oaks Loblolly pine Shortleaf pine	84 70* 80* 65	78-90 66-75 76-85 64-66	Slight	Slight	Slight	Loblolly pine	3o7
<u>Sees</u> silty clay loam, 2 to 12% slopes	Yellow-poplar Upland oaks Loblolly pine Black walnut Eastern redcedar	90* 70* 80* - 50*	86-95 66-75 76-85 - 46-55	Slight	Moderate	Slight	Yellow-poplar Black walnut Loblolly pine	3w8
<u>Sequatchie</u> silt loam to gravelly fine sandy loam, 2 to 20% slopes	Yellow-poplar Upland oaks Loblolly pine Black walnut White ash Sugar maple Black cherry	100* 80* 90 - - - -	96-105 76-85 81-98 - - - -	Slight	Slight	Slight	Yellow-poplar Black walnut Loblolly pine	2o7
<u>Staser</u> loam to gravelly fine sandy loam, 0 to 5% slopes	Yellow-poplar Upland oaks Loblolly pine Black walnut White ash Sugar maple Black cherry	100* 80* 90* - - - -	96-105 76-85 86-95 - - - -	Slight	Slight	Slight	Yellow-poplar Black walnut Loblolly pine	2o7
<u>Statler</u> silt loam to fine sandy loam, 0 to 12% slopes	Yellow-poplar Upland oaks Loblolly pine Shortleaf pine	100* 80* 90* 80*	96-105 76-85 86-95 76-85	Slight	Slight	Slight	Yellow-poplar Loblolly pine Black walnut	2o7
<u>Stiversville</u> silt loam to loam, 2 to 20% slopes	Yellow-poplar Upland oaks Loblolly pine Black walnut Black locust	88 74 77+5 - -	82-101 68-89 69-82 - -	Slight	Slight	Slight	Yellow-poplar Black walnut Black locust Loblolly pine	3o7
----- 20 to 30% slopes	Eastern redcedar	50*	46-55	Moderate	Moderate	Slight		3r8
clay loam to clay, 5 to 30% slopes, severely eroded	Loblolly pine Eastern redcedar	70* 40*	66-75 36-45	Moderate	Severe	Moderate to Severe	Loblolly pine Eastern redcedar	4c3e
<u>Sulphura</u> cherty and shaly silt loam, 12 to 45% slopes	Upland oaks Shortleaf pine Virginia pine Loblolly pine Eastern redcedar	55* 55* 55* 65* 35*	50-60 50-60 50-60 50-60 30-40	Slight to Severe	Moderate to Severe	Moderate to Severe	Shortleaf pine Virginia pine Loblolly pine Eastern redcedar	5d3
<u>Taft</u> silt loam, 2 to 5% slopes	Yellow-poplar Upland oaks Loblolly pine Sweetgum Shortleaf pine	90* 61 85* 80* 60	86-95 56-63 80-90 76-85 56-63	Slight	Moderate	Moderate	Loblolly pine	3w8

TABLE 2. SOIL RATINGS FOR WOODLAND USE

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Soils	Potential Productivity			Management Problems			Species Suitable for Planting	Ordination
	Tree Species	Avg. Site Index & Standard Deviation	Range of Site Index	Erosion Hazard	Equipment Restriction	Seedling Mortality		Woodland Suitability Group
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
<u>Talbott</u> silt loam to silty clay loam, 2 to 20% slopes	Upland oaks <u>Loblolly pine</u> <u>Shortleaf pine</u> Virginia pine Eastern redcedar	65* 80* 64+6 70* 46+5	60-70 76-85 56-72 66-75 42-52	Slight	Moderate	Moderate	Loblolly pine Shortleaf pine Virginia pine Eastern redcedar	3c2
----- silty clay, 5 to 20% slopes, severely eroded	<u>Loblolly pine</u> Virginia pine Eastern redcedar	70* 60* 40*	66-75 56-65 36-45	Slight	Moderate	Severe	Loblolly pine Virginia pine Eastern redcedar	4c3e
----- very rocky silty clay, all slopes				Slight	Severe	Severe		4x3
<u>Tarklin</u> silt loam to cherty silt loam 0 to 20% slopes	Yellow-poplar <u>Upland oaks</u> Loblolly pine Shortleaf pine Virginia pine	90* 70* 85* 70* 70*	86-95 66-75 80-90 66-75 66-75	Slight	Slight	Slight	Loblolly pine Shortleaf pine Virginia pine	3o7
<u>Tupelo</u> silt loam, 0 to 5% slopes	Yellow-poplar <u>Upland oaks</u> Loblolly pine Sweetgum	90* 70* 80* 80*	86-95 66-75 76-85 76-85	Slight	Moderate	Moderate	Loblolly pine	3w8
<u>Tyler</u> silt loam to loam, 0 to 5% slopes	Yellow-poplar <u>Upland oaks</u> Loblolly pine Sweetgum	90* 70* 79 80*	86-95 66-75 75-82 76-85	Slight	Severe	Severe	Loblolly pine	3w8
<u>Waynesboro</u> loam to gravelly loam, 2 to 20% slopes	Yellow-poplar <u>Upland oaks</u> Loblolly pine Shortleaf pine Virginia pine	90* 75* 80* 70* 77+6	86-95 70-80 76-85 66-75 69-86	Slight	Slight	Slight	Yellow-poplar Black walnut Loblolly pine Shortleaf pine Virginia pine	3o7
----- 20 to 30% slopes	<u>Black walnut</u>	-	-	Moderate	Moderate	Slight		3r8
----- clay loam to gravelly clay loam, 5 to 30% slopes, severely eroded	Loblolly pine Shortleaf pine <u>Virginia pine</u>	70* 60* 65*	66-75 56-65 60-70	Slight to Moderate	Moderate to Severe	Moderate to Severe	Loblolly pine Virginia pine	4c3e
<u>Welchland</u> cobbly loam, 1 to 10% slopes	Yellow-poplar <u>Upland oaks</u> Loblolly pine Shortleaf pine Virginia pine Sycamore	90* 70* 80* 70* 70* -	86-95 66-75 76-85 66-75 66-75 -	Slight	Moderate	Moderate	Loblolly pine Shortleaf pine	3x8
<u>Whitwell</u> loam to silt loam, 0 to 5% slopes	Yellow-poplar <u>Upland oaks</u> Sweetgum Loblolly pine	95* 75* 90* 90*	90-100 70-80 86-95 86-95	Slight	Moderate	Moderate	Loblolly pine Sweetgum	2w8
<u>Wolftever</u> silt loam, 0 to 5% slopes	Yellow-poplar <u>Upland oaks</u> Bottomland oaks Sweetgum Loblolly pine	90* 70* 80* 80* 80*	86-95 66-75 76-85 76-85 76-85	Slight	Moderate	Moderate	Loblolly pine Yellow-poplar	3w8



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Table 3, SOIL GROUPINGS ACCORDING TO WOODLAND SUITABILITY, is a summary of the most important interpretations for a woodland suitability group of soils.

Column one (1) includes the suitability group symbol and a brief description of the group of soils, including their important hazards and limitations for woodland use and management.

Column two (2) is a tabulation of the soils within each woodland suitability group.

Column three (3) is a list of some commercially-important tree species which occur on the soils in each suitability group.

Column four (4) shows the site class (site index rounded off to the nearest 10-foot interval) for the most important tree species listed in column three.

Column five (5) lists some of the most important tree species which are suitable for planting or direct seeding on the soils in each suitability group.

TABLE 3. SOIL GROUPINGS ACCORDING TO WOODLAND SUITABILITY

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Woodland Suitability Group (Symbol and Description)	Soils	Productivity		Species Suitable for Planting
		Tree Species	Site Class	
(1)	(2)	(3)	(4)	(5)
<u>2o7</u> Soils with high potential productivity; no serious management problems; suitable for needleleaf and/or broadleaf trees.	<u>Arrington</u> silt loam, 0-5% slopes	Yellow-poplar	90-100	Yellow-poplar
	<u>Cannon</u> cherty silt loam, 0-5% slopes	Upland oaks	80	Black walnut
	<u>Crider</u> silt loam, 2-20% slopes	Shortleaf pine	80	Loblolly pine
	<u>Dellrose</u> cherty silt loam, 5-20% slopes	Loblolly pine	90	
	<u>Egam</u> silt loam to silty clay loam, 0-5% slopes	Black walnut	-	
	<u>Emory</u> silt loam, 0-5% slopes	White ash	-	
	<u>Ennis</u> silt loam and cherty silt loam, 0-5% slopes	Basswood	-	
	<u>Etowah</u> silt loam and cherty silt loam, 2-12% slopes	Black cherry	-	
	<u>Greendale</u> silt loam and cherty silt loam, 2-12% slopes	Sugar maple	-	
	<u>Harpeth</u> silt loam to silty clay loam, 2-12% slopes			
	<u>Humphreys</u> silt loam and gravelly silt loam, 2-20% slopes			
	<u>Huntington</u> silt loam and gravelly silt loam, 0-5% slopes			
	<u>Pembroke</u> silt loam, 0-20% slopes			
	<u>Sequatchie</u> silt loam to gravelly fine sandy loam, 2-20% slopes			
	<u>Staser</u> loam to gravelly fine sandy loam, 0-5% slopes			
	<u>Statler</u> silt loam to fine sandy loam, 0-12% slopes			
<u>2r8</u> Soils on steep slopes with high potential productivity moderate erosion hazard and equipment restrictions; suitable for needleleaf and/or broadleaf trees.	<u>Dellrose</u> cherty silt loam, 20-45% slopes	Yellow-poplar	100	Yellow-poplar
		Black walnut	-	Black walnut
		Loblolly pine	80	Loblolly pine
		Black locust	-	Black locust
		Red oaks	-	
		White oaks	-	
		Sugar maple	-	
		Basswood	-	
<u>2w8</u> Seasonally wet soils with high potential productivity; moderate equipment restrictions; suitable for needleleaf and /or broadleaf trees.	<u>Hamblen</u> loam to fine sandy loam, 0-5% slopes	Yellow-poplar	100	Yellow-poplar
	<u>Lindside</u> silt loam and cherty silt loam, 0-5% slopes	Loblolly pine	90	Black walnut
	<u>Lobelville</u> silt loam and cherty silt loam, 0-5% slopes	Red oaks	-	Loblolly pine
	<u>Lynnville</u> silt loam to cherty silt loam, 0-5% slopes	White oaks	-	
	<u>Newark</u> , silt loam, 0-2% slopes	Black walnut	-	
	<u>Whitwell</u> loam to silt loam, 0-5% slopes	Green ash	-	
<u>2w9</u> Excessively wet soils with high potential productivity; severe equipment restrictions and moderate to severe seedling mortality; suitable for needleleaf and/or broadleaf trees.	<u>Dunning</u> silt loam to silty clay loam, 0-5% slopes	Sweetgum	90	Loblolly pine
	<u>Elkins</u> silt loam, 0-2% slopes	Yellow-poplar	100	Sweetgum
	<u>Godwin</u> silt loam, 0-5% slopes	Loblolly pine	90	Cottonwood
	<u>Guthrie</u> silt loam, 0-2% slopes	Cottonwood	100	
	<u>Hollywood</u> silty clay loam to clay, 0-5% slopes	Red oaks	-	
	<u>Iberia</u> silty clay loam to clay, 0-2% slopes	White oaks	-	
	<u>Lanton</u> silt loam to silty clay loam, 0-5% slopes	Green ash	-	
	<u>Melvin</u> silt loam to silty clay loam, 0-2% slopes			

TABLE 3. SOIL GROUPINGS ACCORDING TO WOODLAND SUITABILITY

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Woodland Suitability Group (Symbol and Description)	Soils	Productivity		Species Suitable for Planting
		Tree Species	Site Class	
(1)	(2)	(3)	(4)	(5)
<u>2w9</u> (continued)	<u>Robertsville</u> silt loam, 0-2% slopes <u>Roellen</u> silty clay loam, 0-2% slopes			
<u>2s8</u> Sandy soils with moderate- ly high productivity; moderate equipment restrictions moderate seedling mortality; suitable for broadleaf and/or needleleaf trees.	<u>Bruno</u> loamy fine sand, 0-2% slopes <u>Nugent</u> fine sandy loam to loamy fine sand, 0-2% slopes	Loblolly pine Shortleaf pine Virginia pine Sycamore Sweetgum Cottonwood	90 80 80 - 90 100	Loblolly pine Sycamore Shortleaf pine Cottonwood
<u>3o7</u> Soils with moderately high potential productivity; no serious management problems; suitable for needleleaf and /or broadleaf trees.	<u>Allen</u> fine sandy loam to clay loam, 2-20% slopes <u>Armour</u> silt loam and cherty silt loam, 2-20% slopes <u>Ashburn</u> cherty silt loam to cherty silty clay loam, 6-20% slopes <u>Baxter</u> cherty silt loam, 2-20% slopes <u>Bradyville</u> silt loam to silty clay loam, 0-20% slopes <u>Brandon</u> silt loam or gravelly silt loam, 2-20% slopes <u>Braxton</u> silt loam, 0-20% slopes <u>Capshaw</u> silt loam to loam, 0-12% slopes <u>Captina</u> silt loam, 0-12% slopes <u>Christian</u> silt loam to silty clay loam, 2-20% slopes <u>Culleoka</u> loam, 2-20% slopes <u>Cumberland</u> silt loam to silty clay loam, 2-20% slopes <u>Decatur</u> silt loam, 2-20% slopes <u>Dewey</u> silt loam, 2-20% slopes <u>Dickson</u> silt loam, 2-12% slopes <u>Doneraile</u> silt loam, 0-12% slopes <u>Frankstown</u> cherty silt loam, 0-20% slopes <u>Fullerton</u> silt loam or cherty silt loam, 5-20% slopes <u>Hampshire</u> silt loam to silty clay loam, 2-20% slopes <u>Hicks</u> silt loam to silty clay loam, 2-20% slopes <u>Holston</u> loam and gravelly loam, 2-20% slopes <u>Inman</u> silt loam to silty clay loam, 2-20% slopes <u>Landisburg</u> silt loam and cherty silt loam, 0-20% slopes <u>Lax</u> silt loam, 0-12% slopes <u>Maury</u> silt loam, 2-20% slopes <u>Mercer</u> silt loam to silty clay loam, 0-20% slopes <u>Mimosa</u> silt loam and cherty silt loam, 2-20% slopes <u>Minvale</u> silt loam and cherty silt loam, 2-20% slopes <u>Monongahela</u> silt loam to gravelly loam, 0-12% slopes <u>Mountview</u> silt loam, 2-20% slopes <u>Nixa</u> silt loam, 0-12% slopes <u>Paden</u> silt loam to fine sandy loam, 0-12% slopes	Yellow-poplar Shortleaf pine Virginia pine Eastern redcedar Red oaks White oaks Black walnut Black cherry	90 70 70 60 70 - - -	Yellow-poplar Loblolly pine Shortleaf pine Virginia pine Black walnut

TABLE 3. SOIL GROUPINGS ACCORDING TO WOODLAND SUITABILITY

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Woodland Suitability Group (Symbol and Description) (1)	Soils (2)	Productivity		Species Suitable for Planting (5)
		Tree Species (3)	Site Class (4)	
<u>3o7 (continued)</u>	<u>Pickwick</u> silt loam, 2-20% slopes <u>Russelville</u> silt loam, 0-12% slopes <u>Sango</u> silt loam, 0-5% slopes <u>Stiversville</u> silt loam to loam, 2-20% slopes <u>Tarklin</u> silt loam and cherty silt loam, 0-20% slopes <u>Waynesboro</u> loam and gravelly loam, 2-20% slopes <u>Woolper</u> silty clay loam, 2-20% slopes			
<u>3r8</u> Loamy soils on steep slopes with moderately high productivity; moderate erosion hazard and equipment limitations; suitable for needleleaf and/or broadleaf trees.	<u>Allen</u> fine sandy loam to clay loam, 20-45% slopes <u>Baxter</u> cherty silt loam, 20-45% slopes <u>Culleoka</u> loam, 20-45% slopes <u>Decatur</u> silt loam, 20-30% slopes <u>Dewey</u> silt loam, 20-30% slopes <u>Frankstown</u> cherty silt loam, 20-45% slopes <u>Fullerton</u> silt loam and cherty silt loam, 20-45% slopes <u>Inman</u> silt loam to silty clay loam, 20-45% slopes <u>Mimosa</u> silt loam, 20-45% slopes <u>Stiversville</u> silt loam to loam, 20-30% slopes <u>Waynesboro</u> loam and gravelly loam, 20-30% slopes	Yellow-poplar Shortleaf pine Virginia pine Loblolly pine Eastern redcedar Black walnut Red oaks White oaks	90 70 70 80 50-60 - - -	Yellow-poplar Loblolly pine Black walnut Shortleaf pine
<u>3x8</u> Stony or rocky soils with moderately high productivity; slight to moderate erosion hazard and moderate equipment restrictions; suitable for needleleaf and/or broadleaf trees.	<u>Allen</u> stony fine sandy loam to stony loam, 12-45% slopes <u>Welchland</u> cobbly loam, 1-10% slopes	Yellow-poplar Loblolly pine Shortleaf pine Virginia pine Black walnut Red oaks White oaks	100 80 70 - - - -	Yellow-poplar Black walnut Loblolly pine Shortleaf pine Virginia pine
<u>3x9</u> Stony or rocky soils with moderately high productivity; severe equipment limitations, moderate to severe erosion hazards; suitable for needleleaf and/or broadleaf trees.	<u>Bouldin</u> stony sandy loam, 10-75% slopes	Yellow-poplar Upland oaks Shortleaf pine	90 70 70	Too stony to plant. Manage by natural regeneration.
<u>3w8</u> Seasonally wet soils with moderately high productivity; moderate equipment limitations and slight to moderate seedling mortality; suitable for needleleaf and/or broadleaf trees.	<u>Beason</u> silt loam, 0-2% slopes <u>Lawrence</u> silt loam, 0-5% slopes <u>Sees</u> silty clay loam, 2-12% slopes <u>Taft</u> silt loam, 0-5% slopes <u>Tupelo</u> silt loam, 0-5% slopes <u>Tyler</u> silt loam to loam, 0-5% slopes <u>Wolftever</u> silt loam, 0-5% slopes	Yellow-poplar Sweetgum Loblolly pine Red oaks White oaks Shortleaf pine	90 80 80 70 70 60-70	Loblolly pine Sweetgum
<u>3w9</u> Excessively wet soils with moderately high productivity; severe equipment restrictions and moderate to severe seedling mortality; suitable for broadleaf and/or needleleaf trees.	<u>Dowellton</u> silt loam, 0-5% slopes <u>Lee</u> silt loam and cherty silt loam, 0-5% slopes	Sweetgum Loblolly pine Water oak Red oaks White oaks	90 80 80 - -	Loblolly pine Sweetgum



TABLE 3. SOIL GROUPINGS ACCORDING TO WOODLAND SUITABILITY

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Woodland Suitability Group (Symbol and Description) (1)	Soils (2)	Productivity		Species Suitable for Planting (5)
		Tree Species (3)	Site Class (4)	
<u>3f8</u> Fragmental soils with moderately high productivity; slight to moderate erosion hazard and equipment restrictions and moderate seedling mortality; suitable for needleleaf and/or broadleaf trees.	<u>Bodine</u> cherty silt loam, 5-45% slopes	Shortleaf pine Virginia pine Loblolly pine Yellow-poplar Red oaks White oaks	60 60 70 90 70 60	Loblolly pine Shortleaf pine
<u>3c2</u> Clayey soils with moderately high productivity; slight to moderate equipment restrictions and seedling mortality; best suited for needleleaf trees.	<u>Talbott</u> silt loam to silty clay loam, 2-30% slopes	Loblolly pine Virginia pine Eastern redcedar	70 60 40	Loblolly pine Virginia pine Eastern redcedar
<u>4o7</u> Loamy soils with moderate productivity; no serious management problems; suitable for needleleaf and/or broadleaf trees.	<u>Ashwood</u> silt loam to silty clay loam, 2-20% slopes	Eastern redcedar Red oaks White oaks Black locust	40+ 50+ - -	Eastern redcedar Black locust Loblolly pine
<u>4x3</u> Rocky soils with moderate productivity; slight to moderate erosion hazard and moderate to severe equipment restrictions and seedling mortality; best suited for needleleaf trees.	<u>Mimosa</u> very rocky silty clay to clay, 2-45% slopes <u>Talbot</u> very rocky silty clay, 2-45% slopes	Eastern redcedar Loblolly pine Shortleaf pine	40 70 60	Eastern redcedar Loblolly pine
<u>4d3</u> Shallow soils with moderate productivity; slight to moderate erosion hazard, and equipment restrictions; moderate to severe seedling mortality; best suited for needleleaf trees.	<u>Barfield</u> silty clay loam to clay loam, 2-30% slopes <u>Dandridge</u> silt loam and shaly silt loam, 5-30% slopes <u>Fairmount</u> silty clay loam, 5-20% slopes	Eastern redcedar Shortleaf pine	40 60	Eastern redcedar
<u>4f3</u> Fragmental soils with moderate productivity; moderate erosion hazard and severe seedling mortality; best suited for needleleaf trees.	<u>Bodine</u> cherty silt loam on south aspects, 20-45% slopes <u>Guin</u> gravelly loam, 2-30% slopes	Virginia pine Eastern redcedar Chestnut oak Scarlet oak	60 40 60 60	Virginia pine Eastern redcedar
<u>4c2</u> Clayey soils with moderate productivity; moderate seedling mortality and equipment restrictions; best suited for needleleaf trees.	<u>Colbert</u> silt loam to silty clay loam, 0-20% slopes	Shortleaf pine Loblolly pine Eastern redcedar	60 70 50	Loblolly pine Eastern redcedar
<u>4c3e</u> Severely eroded soils with moderate productivity; moderate to severe erosion hazard, equipment limitations, and seedling mortality; best suited for needleleaf trees.	<u>Allen</u> clay loam severely eroded, 5-45% slopes <u>Braxton</u> silty clay loam, severely eroded, 5-20% slopes <u>Christian</u> clay loam to clay, severely eroded, 5-20% slopes <u>Cumberland</u> silty clay to clay severely eroded, 2-20% slopes <u>Decatur</u> silty clay loam, severely eroded, 5-30% slopes <u>Dewey</u> silty clay loam, severely eroded, 5-30% slopes <u>Fullerton</u> cherty silty clay loam, severely eroded, 12-45% slopes	Eastern redcedar Loblolly pine Virginia pine Shortleaf pine	40 70 60 60	Eastern redcedar Loblolly pine Virginia pine

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Woodland Suitability Group (Symbol and Description)	Soils	Productivity		Species Suitable for Planting
		Tree Species	Site Class	
(1)	(2)	(3)	(4)	(5)
<u>4c3e</u> (continued)	<u>Hampshire</u> silty clay to clay, severely eroded, 5-20% slopes <u>Inman</u> clay loam to clay, severely eroded, 5-45% slopes <u>Mauzy</u> silty clay loam, severely eroded, 5-20% slopes <u>Mimosa</u> cherty silty clay to clay, severely eroded, 5-45% slopes <u>Stiversville</u> clay loam and silty clay loam, severely eroded, 5-30% slopes <u>Talbott</u> clay to silty clay, severely eroded, 5-20% slopes <u>Waynesboro</u> clay loam, severely eroded, 5-30% slopes			
<u>5x3</u> Rocky soils with low productivity; slight to moderate erosion hazard, moderate to severe seedling mortality and equipment restrictions; best suited for needleleaf trees.	<u>Ashwood</u> very rocky silty clay loam, 2-20% slopes <u>Barfield</u> very rocky clay loam, 2-30% slopes <u>Colbert</u> very rocky silty clay to clay, 2-30% slopes	Eastern redcedar	30-40	Eastern redcedar Loblolly pine
<u>5c3</u> Clayey soils with low productivity; moderate to severe equipment restrictions and seedling mortality; best suited for needleleaf trees.	<u>Colbert</u> silty clay to clay, 0-20% slopes	Eastern redcedar	30	Eastern redcedar
<u>5d3</u> Shallow soils with low productivity; moderate to severe erosion hazard, equipment restrictions and seedling mortality; best suited for needleleaf trees.	<u>Dandridge</u> silty clay loam, severely eroded, 5-45% slopes <u>Rockcastle</u> shaly silt loam, 10-50% slopes <u>Sulphura</u> cherty and shaly silt loam, 12-45% slopes	Eastern redcedar	30	Eastern redcedar



